Appl. No. 09/889,351 Amdt. dated May 7, 2003 Reply to Office action of February 19, 2003

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

Claims 1 -20 (Canceled)

- 21. (Currently amended) A filtering reactor comprising,
  - a) a tank open to the atmosphere;
  - b) one or more modules of suction driven filtering membranes in the tank for withdrawing a filtered permeate;
    - c) an inlet to add feed water to the tank; and,
  - d) a retentate outlet to discharge water containing retained solids from the tank from above the one or more modules; and,
    - e) aerators in the tank below the one or more modules; wherein
  - <u>fe</u>) the one or more modules may be backwashed with a liquid comprising permeate; <u>and</u>,
  - gf) the one or more modules have a surface area of at least 500 square meters for every square meter of horizontal cross-sectional area of the tank; and,
- 22. (Previously added) The reactor of claim 21 herein the one or more modules cover more than 90% of the horizontal cross-sectional area of the tank.
- 23. (Currently amended) The reactor of claim 21 wherein
  - hg) the one or more modules are divided into elements, each element having a pair of opposed headers; and,
  - ih) the elements are separated from each other by impervious plates; and,
  - ji) channels are provided for water to flow vertically through the elements.



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- 24. (Previously added) The reactor of claim 23 wherein the elements have hollow fiber membranes oriented generally horizontally.
- 25. (Previously added) The reactor of claim 21 wherein the inlet is located to add feed water to the tank from below the one or more modules.
- 26. (Canceled)
- 27. (Currently amended) A process for filtering water comprising the steps of,
  - a) providing a filtering reactor as in any of claims 21 through 256; and,

containing retained solids flows out of the retentate outlet.

- b) in repeated cycles,
  - (i) permeating filtered water while adding a sufficient volume of feed water to the tank to keep the membranes submerged; and (ii) performing a deconcentration step further comprising at least one or both of (A) providing a flow of feed water into the tank from below the modules or (B) backwashing the one or more membrane modules with a liquid comprising permeate, wherein excess water
- 28. (Previously added) The process of claim 27 wherein the step of permeating is performed at a flux of less than 60 Liters per square meter per hour based on the surface area of the outside of the filtering membranes.
- 29. (Previously added) The process of claim 28 wherein the step of permeating is performed at a flux of less than 40 Liters per square meter per hour based on the surface area of the outside of the filtering membranes.



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30. (Previously added) The process of claim 27 wherein permeation is stopped during the deconcentration step and the one or more modules are aerated while permeation is stopped during the deconcentration step.

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- 31. (Previously added) The process of claim 30 wherein the step of permeating is performed at a flux of less than 60 Liters per square meter per hour based on the surface area of the outside of the filtering membranes.
- 32. (Previously added) The process of claim 31 wherein the step of permeating is performed at a flux of less than 40 Liters per square meter per hour based on the surface area of the outside of the filtering membranes.